Mahdi Taherahmadi

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M.Sc. Student, Computing Science, Simon Fraser University, BC, Canada

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RESEARCH INTERESTS

Reinforcement Learning, Human-Robot Interaction, Computational Neuroscience, Cognitive Science

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EDUCATION

Simon Fraser University, British Columbia, Canada

M.Sc, Computing Science - **GPA: 3.84**   *Sept' 19 - Sept' 21*

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

B.Sc, Computer Engineering.   *July' 13 - July' 18*

RESEARCH EXPERIENCE & PROJECTS

Research Assistant - MARS Lab

- Human Navigational Intent Inference
Supervisor: Prof. Mo Chen   *Aug '19 - Present*

Data Analyst - Rahnema Co.

- RDMA Big Data R&D Team
                                    Jan '18 - Mar '19

Research Intern - AIRLab - Polytechnic University of Milan

- Simulation and Evaluation of Realistic Wireless Communication in Multi-Robot Scenarios
Supervisor: Prof. F.Amigoni   *May '17 - Sept '17*

Research Assistant - Cognitive Robotics Lab - AUT

- Vision-based Advanced Driver Assistance System(ADAS)
BSc Project - Superviser: Dr. Shiry   *Oct '16*

- Comparing Corresponding fMRI, ECOG and EEG data in Human VTC
Joint Project with Royan Institute of Research - Superviser: Dr. Khaligh-Razavi   *Oct '16*

- Victim Detection and 3D Pose Estimation from 2D Images for a Rescue Robot
Supervisor: Dr. Shiry   *Nov '16*

- Community Detection in Social Networks
Fanavard International Data Mining Challenge   *Oct '16*

- RoboCup Rescue Simulation League Base Code
Team SOS VR, Supervisor: Dr. Shiry   *Sept '16*

- Object Classification using Convolutional Neural Networks with Attention Layers
CNN Group, Supervisor: MSc S.MalekGHasemian, Prof. Safabakhsh   *Jan '16*

- Robust Cross Sign Detection for Aerial Robot using Template Matching Algorithm
Supervisor: Dr. Shiry   *Dec '15*

- Humanoid Robot Localization and Behavior Strategy
AUT Robotics Research Center(ARC), Supervisor: Dr. Shiry   *July '14 - July '15*

AWARDS & ACHIEVEMENTS	**3rd Place** - *FIRA RoboWorld Cup 2018*	*Aug '18*

AWARDS & ACHIEVEMENTS

3rd Place - *FIRA RoboWorld Cup 2018*   *Aug '18*
- Team MCS, Simurosot - Miro Middle, Taichung, Taiwan
3rd Place - *FIRA RoboWorld Cup 2018*   *Aug '18*
- Team MCS, Simurosot - RoboChallenge, Taichung, Taiwan
13th Place out of 100 teams - *AUTDMC 2017*   *Nov '17*
- Amirkabir Data Mining Cup 2017, Tehran, Iran
2nd Place - *RoboCup 2017*   *July '17*
- Team SOS VR, Rescue Simulation Virtual Robot league, Nagoya, Japan
1st Place - *RoboCup IranOpen 2017*   *Apr '17*
- Team SOS VR, Rescue Simulation Virtual Robot league, Tehran, Iran
9th Place out of 60 Teams - *Sharif Programming Marathon 2016*   *Sept '16*
- Magnet: The Localized Shopping Recommender System using PredictionIO Platform, Sharif University of Technology, Tehran, Iran
3rd Place - *RoboCup 2016*   *July '16*
- Team SOS VR, Rescue Simulation Virtual Robot league, RoboCup 2016, Leipzig, Germany
3rd Place - *RoboCup 2015*   *July '15*
-Teen size humanoid soccer league, RoboCup 2015, Hefei, China
Top 0.03% - among more than 300,000 participants   *July '13*
- Nation-wide University Entry Exam

PUBLICATIONS & TECHNICAL REPORTS

S. Azami, **M. TaherAhmadi**. "Parametric and Non-Parametric Model for Power Usage Data Time Series Analysis", Technical Report on Statistical Machine Learning Final Project, Oct '16.

S. Azami, **M. TaherAhmadi**. "Implementing and Evaluating Naive Bayes Model and PGM for Heart Disease Classification", Technical Report on SML Final Project, Oct '16.

M. TaherAhmadi. "Implementing and Analysing Linear Regression on a Data Set of Student Grades", Technical Report on SML Final Project, Oct '16.

M. TaherAhmadi, S. Azami, S. Shiry, "S.O.S VR Team Description Paper, RoboCup2016 Rescue Virtual Robot League", *International RoboCup Competition*, Julyy 2016, Leipzig, Germany.

S. Azami, **M. TaherAhmadi**, "Image Compression Using Low-Rank Matrix Approximation", Technical Report for Advanced Mathematics course Project, Dec '16.

TEACHING EXPERIENCE

Computer Engineering Department, Amirkabir University of technology:
 - **Teaching Assistant** - *Linear Algebra and its Applications* - Dr. Ehsan Nazerfard *spring '17*
 - **Teaching Assistant** - *Principles of Programming Languages(C)* - Dr. Shiry   *Fall '16*
 - **Teaching Assistant** - *Engineering Statistics* - Dr. AmirHaery   *Spring '16*
 - **Teaching Assistant** - *Discrete Structures* - Dr. Fallah   *Spring '16*
 - **Teaching Assistant** - *Data Structures & Algorithms* - Dr. Dehghan   *Fall '15*
 - **Teaching Assistant** - *Principles of Programming Languages(C)* - Dr. Shiry   *Fall '15*
 - **Teaching Assistant** - *Advanced Programming (JAVA)* - Dr. Pourvatan   *Spring '15*
 - **Teaching Assistant** - *Principles of Programming Languages(C)* - Dr. Shiry   *Fall '14*
Medical Engineering Department, Amirkabir University of technology:
 - **Teaching Assistant** - *Robotics* - Dr. AhmadiPajouh   *Fall '15*

NOTABLE COURSEWORK PROJECTS

Heart Disease Classification using PGM - *Statistical Machine Learning*   *Fall '16*
Power Usage Data Time Series Analysis - *Statistical Machine Learning*   *Fall '16*
Linear Regression on Student Grades Data - *Statistical Machine Learning*   *Fall '16*
Face Recognition Using SVD - *Advanced Engineering Mathematics*   *Fall '16*
SVD Image Compressor - *Advanced Engineering Mathematics*   *Fall '16*
Graph Based Motion Planner - *Design Algorithm*   *Spring '15*
Huffman Coding Data Compression - *Data structures & algorithms*   *Fall '14*
Joumoung (The Strategy Game) - *Advanced Programming(Java)*   *Spring '14*

WORK EXPERIENCE	**Data Analyst** - Python, Plotly Dash, Apache Airflow, Apache Spark, Oracle DB, MongoDB - *Rahnema Company*, Beheshti ave, Tehran, Iran.	*Jan '18 - Present*
	Back-End Developer - Python, JS, PHP, Symfony, Git, Redmine - *ZoodFood Company, IIG*(Iran Internet Group), Vanak sq, Tehran, Iran.	*July '15 - Oct '16*
	Software Developer - Java, MySql, HTML, CSS, Illustrator, Git - *RAPNA*, Roshd Science & Technology Center, Tehran, Iran.	*Aug '13 - Dec '14*

COMPUTER SKILLS	**Languages**: C, C++, Qt, Java, Python, Matlab, Bash, JS, PHP, Assembly **Database Systems**: MySQL, SQL Server **Typesetting**: LaTeX, Microsoft Word **Frameworks, Operating Systems, and Scientific Tools**: Linux, ROS, OpenCV, Weka, Caffe, Theano, Spark, NumPy, Pandas, Scikit-learn, pgmpy, Git, Docker **Designing Tools**: Adobe Photoshop, Adobe Illustrator, Gimp

VOLUNTEER EXPERIENCE & POSITION OF RESPONSIBILITY	**Technical Committee of RoboCup AsiaPacific 2018** - Virtual Robot Rescue.	*Dec '18*
	Technical Committee of RoboCup IranOpen 2018 - Virtual Robot Rescue.	*Apr '18*
	Lecturer at CEIT Robotic Summer School - *Introduction to ROS*	*June '17*
	Presenter at 9th Linux Festival - *Introduction to Virtual Robot*	*May '17*
	Technical Committee of RoboCup IranOpen 2017 - Virtual Robot Rescue.	*Apr '17*
	Leader of Team S.O.S vr - RoboCup Rescue, Virtual Robot Competition.	*July '16*
	Presenter at 8th Linux Fest - *Introduction to Cuda, Caffe, ROS & Docker*	*May '16*
	Member of 7th, 8th & 9th Linux Fest Organization team	*May '16*
	Director of Cognitive Robotics Lab - Computer Engineering department.	*July '15*
	Coach and Captain of Faculty football team.	*Sept '14*
	Chief Editor of 0&1 magazine - *CEIT Students Scientific Chapter*	*Oct '14*
	Editor at Pouyesh magazine - *CEIT students association*	*Sept '13*

SPOKEN LANGUAGES	**Persian***(Native)*, **Turkish***(Native)*, **Arabic***(Fair)* **English***(Fluent)* (TOEFL - 10 Nov - R:26 L:28 S:22 W:23 - Total:99) (TOEFL - 1 Dec - R:25 L:25 S:26 W22 - Total:98)

REFERENCES	**Mo Chen - Assistant Professor** - School of Computing Science, Simon Fraser University - *mochen@cs.sfu.ca* - Home Page
	Angelica Lim - Assistant Professor - School of Computing Science, Simon Fraser University - *angelica@rosielab.ca* - Home Page
	Saeed Shiry - Assistant Professor - Computer Engineering Department, Amirkabir University of technology - *shiry@aut.ac.ir* - Home Page
	Francesco Amigoni - Associate Professor - Department of Electronics, Information and Bioengineering, Polytechnic of Milan - *francesco.amigoni@polimi.it* - Home Page